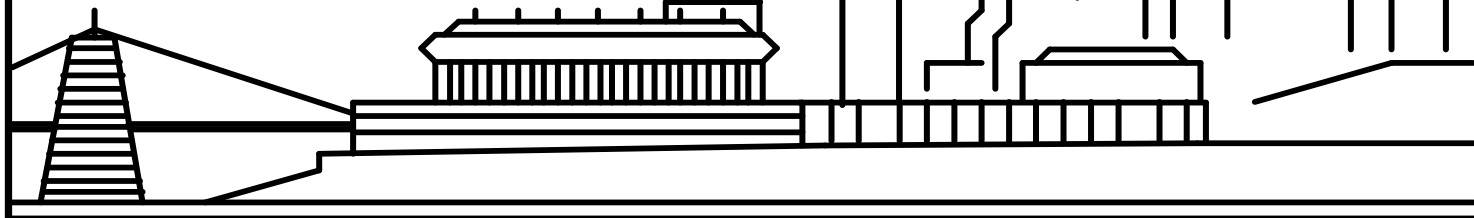




INSTITUTE OF  
ELECTRICAL &  
ELECTRONICS  
ENGINEERS, INC.



SEPTEMBER 1998

## IEEE CINCINNATI SECTION NEWSLETTER

### SEPTEMBER MEETING

### Computers, Then and Now

**DATE :** September 24, 1998

**PLACE :** Quality Inn Central (Norwood) - See directions on Page 12.

|               |                                |              |                      |
|---------------|--------------------------------|--------------|----------------------|
| <b>TIME :</b> | 5:30 PM (Social Time)          | <b>COST:</b> | \$7.00 (Members)     |
|               | 6:00 PM (Dinner)               |              | \$3.00 (Students)    |
|               | 7:00 PM (Program)              |              | \$9.00 (Non-Members) |
|               | 8:30 PM (Approx.- Adjournment) |              |                      |

**RESERVATIONS ARE REQUIRED FOR DINNER ONLY !!!**

**THE CINCINNATI SECTION NOW HAS ITS OWN VOICE MAILBOX** for making reservations for meetings or for providing comments or suggestions to **YOUR** Executive Committee.

Please call the new, Cincinnati Section Voice Mailbox at 629-9380, by **Noon, Tuesday, September 22, 1998** if you plan to attend. Please leave your **Name** and **IEEE Member Number**.

**ABOUT THE MEETING:** The subject of the meeting covers "Computers, Then and Now". Martin Littmann will present "the earlier era" in the history of computers including personal experience with some of the companies, projects and people of the earlier times. He will recall experience with IBM, and the Whirlwind project. Following, Ray Anderson will cover the computer with emphasis on the "personal computer" from the time of its initial availability in the early 1970's up to the present, including development of PC hardware, the evolution of PC operating systems, and application software. Of particular interest are the various computer languages which were used by the PC, and in some cases faded away. Still with us is the uncertainty of defacto versus IEEE standards, and the alternative operating systems, browser "wars", JAVA and encryption battles. Ray will comment on the economic impact of the PC and future trends. Audience participation will be solicited by Dick Reiman who will chair the meeting.

**ABOUT THE SPEAKERS:** Martin Littmann holds a Masters of Science Degree specializing in Metallurgy, and worked for Armco Inc. for 42 years including research on electrical steels and soft magnetic alloys. His work with Armco Inc. included visits to pioneers in computers and experience with the Whirlwind project of MIT. He is the inventor or co-inventor of 13 U. S. Patents.

Ray Anderson also has a Master's Degree concerning field fluxes of shaded pole motors, and his career with General Electric varied from the Mho Distance Relay for transmission protection, to Electrodisposition Spot Welding of jet engine parts, saturable core transformers for magnetic amplifiers, the control system of the Seawolf Nuclear submarine, elements of a high speed superconducting digital computer. He served as Supervising Engineer for reentry systems, orbiting satellites, and IBM's. He became Program Manager for controls technology at GE Evendale, and work included development of high temperature transistors and related semiconductors.

Dick Reiman is the Cincinnati Section Historian and writes a column for the Newsletter on the history of electrical engineering.

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### **CHAIR'S MESSAGE**

*by Randy Holt, Section Chair*

If you're like me, the Internet has become a critical part of my life, both for work and for home. It's hard to think that I existed so many years without e-mail, or that there were times when I couldn't get instant access to information.

Your Cincinnati Section IEEE has also been entering the Internet arena. The monthly newsletters can be sent to you via e-mail, and they are also made available to you on our web site (<http://ieee.cincinnati.fuse.net>), where we also supply you with information about other things related to the section.

The main IEEE organization (<http://www.ieee.org>) also is actively promoting the Internet. Did you know that you can obtain a personal e-mail alias service from IEEE for free that enables you to use [yourname@ieee.org](mailto:yourname@ieee.org) as your e-mail address? By simply providing IEEE with your "real" e-mail address, you can use this "pseudo" address to avoid the problems that arise when you change your e-mail address (new job, etc.). You just send the newer location to IEEE when it changes. Now when someone sends mail to your IEEE location, it is re-routed to your current address. There are also many on-line member services at the IEEE site that allow you to change your address, view the Spectrum, look at some periodicals on-line (if you are a member of that technical society), etc.

Is there more that your Cincinnati Section can do for you on the Internet? Please let me know ([holthr@nku.edu](mailto:holthr@nku.edu)).

I'm looking forward to a great year, starting with our September technical presentation on "The History of the Computer." I hope you can come to the Quality Inn Norwood at 5:30 p.m. on September 24, 1998, to see an interesting program and visit with your fellow EE's.

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### **The Personal Computer - Part 7**

*by Dick Reiman, Historian*

Stephen W. "Woz" Wozniak and Stephen P. Jobs had collaborated on building a Personal Computer, and Woz had offered his invention to Hewlett-Packard, his employer who was not interested. The introduction of Altair as a computer kit had spawned many computer clubs including one in Silicon Valley named the "Homebrew Computer Club". The club began with 30 members including Woz, soon grew to 500 and held their meetings in an auditorium at the Stanford Linear Accelerator Center. Half of each meeting was devoted to audience participation, and the remaining half to small groups of common concerns. Woz demonstrated his computer board to "Homebrew C. C.".

Woz's microprocessor-based computer used an 8-bit microprocessor chip, the 6502, design by MOS Technology, a part of Commodore Business Machines, Inc. Woz wrote a BASIC interpreter for the 6502, then designed the computer itself during his evenings. He included a circuit board with 4K of RAM. Although it wasn't as powerful as Altair, it was cheaper and less complicated, and was connectable to a monitor. Jobs, back from his travels in India, offered many suggestions. Woz and Jobs decided to market their PC.

Jobs and Woz sold 100 of the boards to Paul Terrel, owner of a newly formed Byte Shop at \$500 each, and this enabled them to found the Apple Computer Company. With Terrel's orders in hand, plus their own funds of \$1350 and a \$5000 loan from a friend, Jobs and Woz were in business. The product was only for hobbyists, since it lacked keyboards, a terminal, disc drives and other peripherals, but a market did exist. All told, Woz and Jobs sold 175 boards for \$500 apiece, netting half in profits.

Woz began the design of a more sophisticated computer, and Jobs sought capital from A. C. Markkula, an alumni of Intel, and their first marketing manager who was a millionaire at age 32. Markkula liked Jobs and Woz and decided to help them write a business plan. He saw a great future in the Personal Computer and believed Woz's Apple 11, the more sophisticated design, was first rate. He decided to join Apple for a third share for \$91,000 and then obtained venture capital and credit in the amount of \$850,000. Apple now had both the money and the management to become a leader in the Personal Computer business.

Introduced in 1977, the Apple 11 proved to be the Volkswagen of Personal Computers. It sold for \$1195, had 16K of RAM, could be connected to a monitor, and was ideal for video games. Apple's sales rose from \$775 thousand in 1977 to \$335 million in 1981. Its stock offering in 1980 opened at \$22 per share and climbed to \$29 at days end, bringing the company's market value to \$1.2 billion. Job's shares were worth \$165 million, Woz's \$88 million, and Markkula's \$154 million.

In 1981, IBM introduced its own personal computer, the "PC", which was an immediate success. With IBM's prestige and influence behind it, the exotic and expensive PC technical tool became an ordinary commodity like a TV set. Many manufacturer's rode IBM's coattails and these IBM clones competed with each other for lowest cost and were said to be "just like IBM". The Personal Computer had become an accepted addition to the technology of life

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## **A MESSAGE FROM YOUR PACE CHAIRMAN**

*by Bill Lohner, PACE Chairman*

### **"A Network of Professional Activities for Engineers"**

In the May issue of the IEEE Newsletter we made an appeal to the membership to obtain volunteers to help encourage middle school students to study math and science courses. Needless to say the response from the IEEE membership to our questionnaire was discouraging. There was no response. The lack of response was discussed at the August meeting of our PACE committee. Even though we had no response our committee decided to continue towards our goal to establish programs to encourage middle school students to pursue math and science studies.

The committee thought perhaps the timing of the questionnaire in May was not good and we would resubmit a call for volunteers this fall when IEEE members have a better idea of what extra activities they could participate in. Listed below are some of the steps we discussed to encourage more participation by the IEEE membership. We also decided to get more information as to the specific needs of the schools. Whatever programs we undertake will be limited to pilot programs at selected schools.

1. Obtain information from IEEE sections across the country who are conducting successful

programs to encourage math and science studies.

2. See what local programs are in place between school, industry and other organizations to improve math and science education.

3. Contact certain segments of our local IEEE membership, such as Life members, Senior members and new IEEE members to our section and ask them if they would assist in this program.

4. Get more specific information from schools as to their specific needs.

Members of the PACE committee are working on the various items listed above. As I stated at the beginning of the article we will continue to work to encourage math and science education. Again I am soliciting help and suggestions from the IEEE membership. If you can help in the classroom, mentoring, Career day where you work or just talking to students in your area please contact me.

Bill Lohner  
PACE Chairman  
(513) 385-7268

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## **IEEE NEWS**

### **IEEE-USA THIS WEEK Debuts on the Web**

**WASHINGTON, May 29, 1998** – IEEE-USA has launched a new biweekly Web supplement to its print newsletter, IEEE-USA PERSPECTIVES. IEEE-USA THIS WEEK will serve as a timely source of career and public-policy news and information for U.S. professionals in the electrotechnology and information-technology communities.

"Like a good pizza delivery service, we'll bring you the tastiest news fast, hot and fresh" said editor Lee Stogner. "And we'll use the capabilities of the Web to create an open forum on the vital issues of interest to technical professionals."

In addition to news and feature articles, IEEE-USA THIS WEEK contains an expanded "News Bytes" section, an "Ask the Experts" feature, and links to other useful resources. The site also includes a "Reader's Forum" where members can share their views on hot topics. New editions will appear every two weeks, and previous issues will be archived.

Readers can check out the current issue at <<http://www.ieeeusathisweek.org>>. Those wishing to contribute articles or serve as field editors may contact Lee Stogner at <<mailto:l.stogner@ieee.org>> or Assistant Editor Ray Dora at <[mailto:Raymond\\_P\\_Dora@res.raytheon.com](mailto:Raymond_P_Dora@res.raytheon.com)>.

### **IEEE TEAMS UP WITH A UNIVERSITY FOR A PILOT PROGRAM TO OFFER A WEB-DELIVERED COURSE**

**PISCATAWAY, NJ, August 5, 1998** - The IEEE has created an alliance with the Department of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign (UIUC), Urbana, IL to offer a web-delivered course on antennas and propagation.

This four-week course, designed to serve as a refresher for practicing engineers, will be based entirely on the Internet. It will begin on November 1, 1998 and run through November 30 with enrollment starting on August 15 and lasting through October 31. Course capacity is limited to 30 students.

The course will provide learners with an analytical and intuitive understanding of antenna physics, expose them to antenna computer-aided design software, and introduce them to a variety of antenna structures of practical interest. The course will also cover recent developments in the wireless and personal communication systems. Those intending to register are expected to have a basic knowledge of electromagnetic wave theory outlining the general plane wave solution of Maxwell's equations, phenomena involving reflection and transmission of plane waves, transmission lines, and impedance matching techniques. Students who successfully complete the course will be awarded 3.6 IEEE Continuing Education Units (CEUs).

Eric Michielssen, Ph.D. will be instructing the course. Dr. Michielssen received his Ph.D. from the University of Illinois at Urbana-Champaign in 1992. He is an assistant professor in the UIUC Department of Electrical and Computer Engineering, associate director for the Center of Computational Electromagnetics, and a part-time faculty member in the Beckman Institute Photonic Systems Group. His professional interests are computational electromagnetics, photonic systems, high-speed digital circuits, fast algorithms, and stochastic optimization.

For more information about the course contents and requirements, go to: <http://www.ieee.org/eab/distance/webcourse.html>.

The tuition for this pilot offering of the course is: Member price, \$350. List price: \$400. For more information about this educational opportunity contact Peter Wiesner, IEEE Educational Activities, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331; Phone: 732.562.5500; Fax: 732.981.1686; E-mail: [p.wiesner@ieee.org](mailto:p.wiesner@ieee.org)

### **IEEE CALLS FOR 1999 IEEE HEINRICH HERTZ MEDAL NOMINATIONS**

**PISCATAWAY, N. J., 1 July 1998** -- The IEEE Awards Board has opened nominations for the 1999 IEEE Heinrich Hertz Medal. Sponsored by the IEEE Foundation, the medal is one of the highest awards bestowed by the IEEE Board of Directors. It is presented to an individual in recognition of outstanding achievements in hertzian (radio) waves. The award consists of a gold medal, bronze replica, certificate and a cash prize.

The deadline for submission of nominations is 1 October 1998. Members can obtain and submit nomination forms through the IEEE Awards/Fellow Activities Web site at [www.ieee.org/awards](http://www.ieee.org/awards). Forms also can be obtain and submitted by email to [awards@ieee.org](mailto:awards@ieee.org). Printed nomination forms also are available.

The Awards Web site provides more information about the IEEE Heinrich Hertz Medal, including a list of past recipients, and information about all other Institute-level awards.

Address questions to: IEEE Awards Department, 445 Hoes Lane, Piscataway, NJ, USA 08855-1331; tel. 732-562-3840; fax. 732-981-9019.

### **IEEE-USA WILL HOLD NATIONAL CONSULTANTS' CONFERENCE THIS FALL IN CHICAGO**

**WASHINGTON, Aug. 11, 1998** -- The IEEE Chicago/Rockford Consultants' Network will host the 10th IEEE-USA National Consulting Workshop on Oct. 17 in Schaumburg, Ill.

The workshop is designed for practicing or aspiring consultants in the electrotechnology and information-technology fields. Expert consultants will explain their secrets and give practical how-to information on such topics as the following:

- \* getting started;
- \* financial aspects, fee setting, taxes;
- \* finding clients;
- \* the changing consulting arena and the Internet;
- \* employed full-time, consulting part-time;
- \* 30 yrs consulting experience: a perspective;
- \* intellectual property;
- \* networking and referrals.

The workshop will be held from 8:30 a.m. to 4:00 p.m. at the Chicago Marriott-Schaumburg on 50 N. Martingale Rd. (Directions: From the I-90, go south on 53, exit at Higgins Rd., west 2 blocks, then left or south on Martingale).

The registration fee is \$65 for IEEE members and \$75 for non-IEEE members, minus a discount of \$10 for early registrations received by October 9. Registration includes continental breakfast, refreshments at breaks, lunch, and copies of the speakers' handout materials. A special room rate of \$88 for the night before or after is available by calling the hotel reservation line at 847-240-0100 by Sept. 17.

For more information on IEEE-USA consultants' workshops, see the Web site at <<http://www.ieeeusa.org/usab/BUSINESS/workshop.aicn.html>>. To register, send check (payable to IEEE) or credit card info, along with member number if applicable, to Dr. Gary L. Blank at <<mailto:g.l.blank@ieee.org>>; 847-464-4081 (fax); or P.O. Box 70155, Plato Center, IL 60170.

### **IEEE-USA Offers Free Electrotechnology Career Vitality Packets**

**WASHINGTON, July 22, 1998** -- IEEE-USA has released a free career vitality packet outlining its extensive career-development and employment-assistance services for professionals in the electrotechnology and information-technology communities. The packet is designed to serve human resource professionals as well as individual students, IEEE members and other electrical, electronics and computer engineers and computer scientists.

The packet's contents include detailed information on the Engineer's Guide to Lifelong Employability, the IEEE-USA Salary Survey and personal Salary Benchmarks workbook, IEEE-USA's employment and job-listing services, and the National Directory of Electrotechnology and Information Technology Consultants, plus a free copy of Today's Engineer magazine -- the only publication devoted exclusively to the professional development of engineers of all disciplines.

Recipients of the packet will learn about a range of IEEE-USA's career and employment services that can help technical professionals develop greater career vitality. These programs include the nation's number-one electrotechnology job listing service (with a new entry-level section), an alliance of local consultants' networks, career workshops, resume-referral services, job fairs, free employment assistance for IEEE members, and a series of career-oriented papers, guides and resource materials for technical professionals and their employers.

To request a career vitality packet, contact Mike Chaykovsky at 202-785-0017, ext. 337, or <[m.chaykovsky@ieee.org](mailto:m.chaykovsky@ieee.org)>. For additional information on IEEE-USA's career and employment resources, see URL <<http://www.ieeeusa.org>>.

### **IEEE-USA STATEMENT ON WHITE HOUSE H1-B PROPOSAL**

**WASHINGTON, July 31** -- IEEE-USA reacted today to the Administration's proposed revisions to the H1-B "compromise" bill. House leaders had planned a vote on H.R. 3736 this morning but the legislation was pulled following a Presidential veto threat yesterday afternoon. The White House issued today a 15-point list of revisions that it said were necessary for the President to sign the bill.

Following is the statement by IEEE-USA President Dr. John R. Reinert:

"The White House proposal is a step in the right direction. The amount and the term of the increase in H1-B admissions is not as bad as what the House would have voted on today, and there are beneficial new provisions that would improve educational and training opportunities for U.S. citizens, add teeth to enforcement, and provide some protections for H1-B workers.

"However, the Administration proposal exempts most employers from the worker safeguards, and we fail to see why all workers shouldn't be equally protected from abuses of the H1-B program. Furthermore, we continue to question the need for any increases in H1-B admissions, especially at a time of mounting layoffs in the high-tech industry and a recent surge in unemployment of technical professionals.

"We urge Congress and the White House to forge legislation that accommodates the legitimate needs of industry without trampling on the career opportunities of U.S.- and foreign-born technical professionals."

### **Second Annual IEEE-USA Elections Coming This Fall**

IEEE-USA is getting ready for its second annual election. Last year, the new restructuring which transformed IEEE-United States Activities into IEEE-United States of America (IEEE-USA) allowed the IEEE's U.S. members to elect their own leaders for the first time. The candidates this year are:

- \* 1999 President-Elect: Merrill W. Buckley, Jr.; Charles S. Lessard; and Michael R. Andrews
- \* 1999 IEEE-USA Member-at-Large: Michael C. Mulder and Robert P. Noberini

The IEEE will mail ballots to all members Sept. 1. Members must return their ballots in accordance with the instructions by Nov. 2. More information on the elections is available on IEEE-USA's Nominations and Elections page at URL <[www.ieeeusa.org/usab/ELECTION](http://www.ieeeusa.org/usab/ELECTION)>.

### **Finished Grad School? Here's What Companies Deem You're Worth**

Did you finally get that master's you've been working on? Are you considering a graduate degree? What is your advanced degree worth these days, anyway? IEEE-USA's Workforce Committee recently released figures showing the 1998 average beginning salary offers for engineers and computer scientists. IEEE-USA bases its information on surveys the National Association of Colleges and Employers (formerly the College Placement Council) conducts annually. Here's a summary of starting salary offers for electrical, electronics and computer engineers:

#### Master's degree candidates (by curriculum):

Electrical and electronics engineering: \$49,792  
Computer science: \$47,270

#### Doctoral degree candidates (by curriculum):

### **IEEE-USA Offers Fellowship At FCC**

IEEE-USA is looking for a qualified IEEE U.S. member interested in spending a year in Washington as a technical advisor to the Federal Communications Commission (FCC), beginning in January 1999. IEEE-USA and the FCC are collaborating in offering a Fellowship in the FCC Office of Policy and Plans to help the nation's telecom regulators understand how new, advanced and alternative telecommunications network architectures and technologies could affect telecommunications policy.

The deadline for receipt of completed applications is Oct. 2, 1998. Consult the Government Fellowships page at URL <<http://www.ieeeusa.org/usab/FORUM/GOVFEL>> for more details and an application kit, and be on the lookout for the September print issue of *IEEE-USA PERSPECTIVES*, where IEEE-USA's first FCC Fellow, Stan Trost, will share his experience with the fellowship so far.

### **Does Your 'AQ' Match Your 'IQ' And 'EQ'?**

More important than an employee's IQ (intelligence quotient) or EQ (emotional quotient) may be the worker's AQ, the "adversity quotient," some companies now say. Companies such as Marriott International Inc. are conducting "adversity training" to help employees learn how to deal with unexpected changes and challenges, and how to come up with innovative problem-solving ideas.

A June 14, 1998, *Washington Post* article described how companies are helping turn passive employers into "climbers," with a result of improved work and confidence, less sick days and less turnover. But, the article noted, some critics say "adversity training" is a new name for an old idea. According to D.C.-based workplace consultant Tom Morris, "it's nothing more than the old adage 'if you're given lemons, make lemonade,' and my mother taught me that."

For information on career advice and resources offered by IEEE-USA, see URL <<http://www.ieeeusa.org/usab/DOCUMENTS/CAREER/career.menu.html>>.

### **IEEE-USA Celebrates Golden Jubilee**

In 1998, IEEE-USA celebrates 25 years of service to the electrical, electronics and computer engineering profession in the United States. The IEEE founded IEEE-USA 1973 as its United States Activities Committee (USAC), charged with promoting the professional interests of IEEE's U.S. members. By referendum of the U.S. membership, USAC became IEEE's United States Activities Board (USAB) in 1975. On Jan. 1, 1998, USAB took the next step, formally becoming IEEE-United States of America (IEEE-USA). Today, IEEE-USA promotes the career and public-policy interests of 220,000 U.S. IEEE members. For more on the history of professional activities, along with some fun and a chance to win prizes, check out IEEE-USA's 25th Anniversary Web Site at URL <<http://www.ieeeusa.org/usab/ANNIVERSARY>>.

### **IEEE-USA URGED PRESIDENTIAL VETO OF H-1B DEAL**

IEEE-USA opposed an agreement on high-tech guest-worker legislation announced on July 24 by Congressional Republican leaders, and called on President Clinton to carry through on an earlier threat to veto H-1B legislation that does not provide adequate safeguards for U.S. workers. The next week, a spokesperson for the President renewed the veto threat, saying the bill would not pass muster without a series of provisions the Administration proposed to beef up the worker protections.



According to the Republican agreement reconciling legislation passed in the Senate and pending in the House, H1-B visa limits would be raised from 65,000 in 1997 to 85,000 in 1998, 95,000 in 1999, 105,000 in 2000, and 115,000 in 2001 and 2002. Also, the recruitment and no-layoff provisions of the House bill would apply only to employers whose H1-B employees constitute at least 15 percent of their workforce.

"This agreement is a capitulation rather than a compromise," said IEEE-USA President John R. Reinert. "The increase is too large and too long and the worker safeguards too lax to prevent harms to our high-tech workforce and the long-term vitality of the U.S. technical infrastructure. We call on the President to veto this flawed legislation."

Dr. Reinert also noted that the Congressional move to vastly expand the H1-B guest-worker program comes as the U.S. job market for technical professionals is softening. "In the last few months, more than 150,000 jobs have been cut by technology companies and the unemployment rate for electrical engineers has nearly tripled," he said. "If there ever was a bad time for Congress to bring in a half-million indentured, high-tech guest-workers, this is it."

Prior to today's announcement, IEEE-USA had endorsed legislation sponsored by Rep. Lamar Smith, R-Texas, and passed this spring by the House Judiciary Committee, that included a substantial temporary increase in the H1-B visa limit but would have enacted much stronger worker safeguards than the new brokered agreement.

The amended House legislation was withdrawn on Aug. 6 after Republican leaders failed to muster enough votes to pass the bill over White House objections. The legislation may be taken up again after the House returns from recess in September.

## **THE ORIGINS OF IEEE-USA**

In honor of IEEE-USA's Silver Jubilee, we present the following excerpt of remarks long-time volunteer John Guarrera delivered at the IEEE-USA 25th anniversary dinner that took place during the recent Board Series Meetings in Detroit. Guarrera is a former IEEE President and former IEEE Vice President, Professional Activities, and United States Activities Board (USAB) Chair. For more information, see IEEE-USA's anniversary Web page at <http://www.ieeeusa.org/usab/ANNIVERSARY>.

It all started with a 1970 article by the then-president of the IEEE, which appeared in Spectrum and which stated that the Institute should not be involved in the economic concerns and employment problems of the members. This article generated the largest response from the members than any other article, before or since. Most of the letters were very critical of that position and stated so in very graphic terms.

Jim Mulligan, who was running as an unopposed candidate for president, took the letters very seriously and made a trip around the country to visit the larger sections and talk directly with the members. He found very hostile crowds everywhere he went and rumor has it that in Columbus, many of the attendees were prepared to greet Jim with overripe vegetables and other items of similar nature.

Jim then toured the country to meet with the local leadership of the IEEE and found an almost unanimous consensus that the IEEE should become involved in the economic concerns and needs of the members.

About that same time Vic Galindo, an active member of the Microwave Theories and Techniques Society, successfully circulated a petition to change the constitution, which would have converted the IEEE to an organization that would have as its primary interest the economic welfare of its members.

The IEEE Board did not feel that this was in the best interests of the IEEE and vigorously and publicly opposed the petition. This was a very unpopular Board position at that time due to the unemployment problems and the loss of pension benefits being experienced by our members.

Vic Galindo's petition succeeded in getting a majority vote, but not the two thirds required for passage. The Board got the message and proposed an alternative constitutional amendment to "permit" the IEEE to become involved in the economic welfare of the membership. This was supported by the IEEE Board and the local leadership of the Institute and passed with an all time record of 82 percent of the votes cast in favor, and an all time record of voter turnout.

### **IEEE-USA JOB LISTING SOLIDIFIES #1 RANKING**

Only months after IEEE-USA's Job Listing Service (JLS) ranked number one in usage in an ELECTRONIC ENGINEERING TIMES reader survey, the JLS has received fresh kudos in a new book for job seekers. In the "Top Job Databases on the Web" section of Pam Dixon's Job Searching Online for Dummies, the author cites the site's ease of use and "rich content." The popular "for Dummies" book series by IDG Books Worldwide has more than 50 million books in print. The item on the JLS includes a shot of the actual IEEE-USA Employment Services Web page, which the author calls an "absolutely top-of-the-line techie site. . .I found great jobs." The jobs site can be found at URL <<http://www.ieeeusa.org/jobs.html>>.

To assist job seekers, IEEE-USA also publishes **The Engineer's Guide to Lifelong Employability**, a practical resource book on locating and obtaining engineering opportunities throughout one's career. To order, call 1-800-678-IEEE and ask for product no. UH-2970.

### **NSF, TECH TRANSFER BILLS SAIL THROUGH HOUSE**

The House of Representatives on July 14 approved the bipartisan National Science Foundation (NSF) Reauthorization Act of 1997 (H.R. 1273) and the Technology Transfer Commercialization Act of 1997 (H.R. 2544). "Both of these bills represent a positive, bipartisan approach to maintaining science policy as a high priority on Congress's agenda," said Science Committee Chairman F. James Sensenbrenner, Jr. "H.R. 1273 and H.R. 2544 will keep America's scientific enterprise moving forward and ensure our competitiveness in the ever-changing world of technology."

H.R. 1273, which was introduced last April, authorizes about \$11.2 billion for FY 1998-2000 for the NSF, including \$8.4 billion for research and \$2.0 billion for education and human resource activities. The bill also expresses the sense of Congress that creating solutions to the Y2K computer problem be an NSF priority and prohibits any NSF funds from being used for the U.S. Man and Biosphere Reserve Program.

The Technology Commercialization Act of 1997, H.R. 2544, removes the legal obstacles associated with licensed inventions created in government-owned and government-operated laboratories. It uses the framework set up in the Patent and Trademark Laws, also known as the Bayh-Dole Act of 1980 (P.L. 96-517), to create authorities similar to those in use for licensing university or university-operated federal laboratory inventions. The bill also amends the Federal Technology Transfer Act to allow federal laboratories to include already existing patented inventions into cooperative research and development agreements (CRADAs).

IEEE-USA endorsed both bills through its participation in the American Association of Engineering Societies (AAES), which sent letters in support of the legislation to Congressional lawmakers.

### **National Engineers Week Announces 1999 Billboard Campaign**

**Washington, July 17, 1998** -- For its 1999 celebration, the National Engineers Week Committee will again take the message that "Engineers Turn Ideas into Reality" to the streets and the highways through its Outdoor Advertising Campaign. The goal of the program, which will be led by Sections and Student Branches of engineering societies around the country, is to place a public-service announcement involving engineers on a minimum of 100 billboards during the month of February.

The campaign has a dual purpose: to increase grassroots involvement in National Engineers Week, particularly among undergraduate engineering students; and to make a broader audience aware of the week-long celebration and the technological achievements it honors.

The program works as follows: First, Sections should contact National Engineers Week and request an Outdoor Advertising Campaign kit. Then, they should identify one (or several) billboards or other prominent public advertising spaces within their community, identify the agency which rents out the space, and call or write to the agency asking to secure it for February 1999. Once the space is secured, the group will mail to National Engineers Week headquarters a reservation form, providing all the details on where and when the materials should be delivered, no later than Dec. 15. Headquarters will provide the artwork and will mail the completed materials directly to the agency.

For 1999, the campaign will again use the theme "Engineers: Turning Ideas Into Reality," with artwork portraying engineers as hands-on problem-solvers. Each poster will contain a tagline stating, "This message brought to you by the National Engineers Week Committee and...," with the name of the sponsoring Section or group, giving the ad more of a local focus and providing a plug for the group doing the work.

The Outdoor Advertising Campaign planning packet will be available by early fall. To reserve a packet, write to National Engineers Week, PO Box 1020, Sewickley, PA 15143, or <<mailto:eweekorders@abdintl.com>>. For more information on National Engineers Week 1999, to be celebrated Feb. 21-27, see URL <<http://www.eweek.org>>.

### **TODAY'S ENGINEER DEBUTS WEB VERSION AND FREE OFFER**

**WASHINGTON, July 2, 1998** – TODAY'S ENGINEER magazine has unveiled an electronic version and a package of new offers designed to make the publication more accessible to IEEE members around the world. TODAY'S ENGINEER, which began publication this year, is the only magazine exclusively devoted to developing engineers' non-traditional professional skills.

"Although TODAY'S ENGINEER is aimed at engineers of all disciplines, it is published by IEEE-USA, which has a mandate from the IEEE Board to disseminate this valuable resource to members both here in the United States and worldwide," said Editor-in-Chief Gerard (Gus) Gaynor. "Our new Web version contains all of the content of the printed version and will be simultaneously available -- at the click of a mouse button -- to readers all over the globe."

The magazine's first two quarterly issues are now on-line and are being offered free to any member who completes a short registration form on the site at URL <<http://www.todaysengineer.org>>. Browsers will find articles, columns and editorial departments promoting the development of cutting-edge professional skills that reach beyond an understanding of technical fundamentals to the broader context in which engineering is practiced, including an ability to think critically, creatively, independently and cooperatively; strong interpersonal and communications skills; and high ethical standards.

In addition to the two free issues, members who visit the Web site can elect to receive the remaining issues this year at half price. Under the limited-time offer, members can subscribe to both the Web and printed versions of the two upcoming 1998 issues for only US\$8.00, the printed version only for US\$6.50, or the Web version for just US\$5.00. (Non-members may subscribe for a full year at US\$12.95 for print, US\$16.00 for print and Web, and \$10.00 for Web only.) A new feature allows surfers to enter their subscriptions on-line via secure credit-card transactions.

For those who prefer to order by phone, the same offers are available by calling 1-800-678-IEEE or 1-732-981-0060 and asking for product no. PB-331.

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## NEW MEMBERS

The following individuals are new IEEE members who are in our Section:

|                      |                      |                     |
|----------------------|----------------------|---------------------|
| DAVID M. BEZESKY     | TAMERA J. KOEGLER    | MICHAEL SIMON       |
| JUDY K. CALVERT      | PRANAV V. RASTOGI    | STACY L. STARNES    |
| BELLA H. CHUDNOVSKY  | RAFAEL R. REILOVA    | THOMAS A. TEGTMEYER |
| LARRY D. GRAY        | PAUL C. RICCOBENE    | SUDEEP THOMAS       |
| RICHARD HITE         | ROBERT G. SCHUMACHER | WILLIAM E. TORP     |
| ELIZABETH L. JOHNSON | JENNIFER SEITZER     | JASON A. WARD       |
| PARIVALLAL KANNAN    |                      |                     |

The following individuals are existing IEEE members who have moved into the Cincinnati Section:

|                     |                       |                      |
|---------------------|-----------------------|----------------------|
| JULIE A. BEDNARCZYK | PREM KUMAR GANESHAN   | KRISTINN KRISTINSSON |
| KEN BEVER           | TIMOTHY A. HARRINGTON | BRIAN E. MEARS       |
| ALAN T. BURSTEIN    | PAUL M. HARTKE        | K. M. GAJJALA PURNA  |

We wish to extend our welcome to all of our Section's new members!!!

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### Directions

**to meeting:** From I-75 or I-71, get off at the Route 562 exit (Norwood Lateral). Then take the Montgomery Road exit off of 562.

Coming from I-71, at the end of the Montgomery Rd. Exit ramp, take a left onto Norwood Ave., follow to stop light and take a left onto Montgomery Rd. Hotel is approximately 2 blocks down on the right.

Coming from I-75, at the end of the Montgomery Rd. Exit ramp, take a left onto Wesley Ave. At next stop sign, turn left onto Norwood Ave. Follow to stop light and take a left onto Montgomery Rd. Hotel is approximately 2 blocks down on the right.

Cincinnati Section Voice Mail (call for  
meeting reservations)

629-9380

Randy Holt - Chairman

572-5710 (Office), holthr@nku.edu (E-mail)

Bob Haas - Vice Chairman

231-2584, rwhaas.engr@worldnet.att.net (E-mail)

Orest Melnyk - Treasurer  
Chris Anderson - Secretary  
Ron Harbaugh - Member-At-Large  
Laurie Tappel - Member-At-Large  
Jack Beckmeyer - Arrangements Chairman  
Bill Lohner - PACE Chairman  
Bob Morrison - Editor

397-5419, o.melnyk@ieee.org (E-mail)  
891-6402, canderso@uceng.uc.edu (E-mail)  
352-6202, Ron.Harbaugh@CinPD.RCC.ORG (E-mail)  
397-6383, ltappel@cinbell.com (E-mail)  
248-0901, 248-0226 (Fax), rfschapp@cinti.net (E-mail)  
385-7268, Ron.Harbaugh@cinphone.rcc.org (E-mail)  
287-3697 (Office), 287-4155 (Fax)  
j.r.morrison@ieee.org (E-mail)

## SEPTEMBER 1998

# IEEE CINCINNATI SECTION NEWSLETTER



**The Institute of Electrical and  
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